

BROAD AGENCY ANNOUNCEMENT 2005-1

**FUNDS AVAILABILITY FOR
DEMONSTRATION PROJECTS AND TECHNOLOGY ADVANCEMENTS
UNDER THE NEXT GENERATION HIGH-SPEED RAIL PROGRAM**

BAA 2005-1 Proposal Preparation Package

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PART I - INTRODUCTION

BACKGROUND

The Next Generation High-Speed Rail Program (Program) is a key element in the Department of Transportation's overall program to encourage the development of higher speed rail in the United States. The main focus is on implementing high-speed rail service in selected congested corridors to achieve a more balanced intermodal transportation system. The Program supports the advancement of high-speed rail, particularly on existing infrastructure, by improving, adapting, and demonstrating potentially more cost-effective technologies which could have wide application in U.S. corridors. An overview of the Next Generation High-Speed Rail Program is included in **Appendix C**.

OBJECTIVE

This Broad Agency Announcement (BAA) is being made to solicit demonstrations of various technology advancements or techniques which can enhance the deployment of higher speed (faster than currently practiced) rail service in the United States. To assure that the results of projects supported under this BAA are used to maximize public benefit, FRA intends to make the results of the work and projects awarded under the BAA available to all interested parties within the public domain.

Technologies most likely to help facilitate the deployment of higher speed rail service are those which will:

- Bring about cost reductions in constructing and maintaining equipment, track, and facilities.
- Reduce operating costs by providing more efficient operations.
- Improve the reliability of equipment and infrastructure components by reducing failures and/or reducing false failure detections.
- Improve safety by reducing human and technology failures.
- Enhance revenue-generating capability by attracting greater ridership through reducing trip times, upgrading customer service quality, increasing reliability, or improving on-time performance.
- Enhance the social benefits or environmental aspects of higher speed rail.

QUALIFYING PROJECTS

Advance the Implementation of Higher Speed Passenger Service

Qualifying projects are those which show promise to make a significant difference in the ability to implement and sustain higher speed passenger operations: those technologies or methods

which specifically address impediments to providing and maintaining operations at higher speeds than are currently practical or cost-effective.

State of Development

The focus of this BAA is on technologies or methods that are ready, or nearly ready, for deployment. In general, these are techniques which may need some additional development or modification for demonstration purposes, but would typically be ready to demonstrate within a timeframe of less than two years of further work.

Innovation

The intent of the BAA is to identify technologies or methods which represent new approaches, or existing technologies which are applied in a new and usefully innovative manner.

PART II - ADMINISTRATIVE GUIDELINES

ELIGIBLE PARTICIPANTS

Any responsible source may submit a proposal concept paper for consideration, including, but not limited to, state or local governments, or organizations of state or local governments, universities or institutions of higher education, hospitals, non-profit organizations, private individuals, corporations, businesses or commercial organizations, except that any business owned in whole or in part by the Federal Government is not eligible. Although businesses owned in whole or in part by the Federal Government are not eligible for funding under the Program, they may contract with eligible participants. Cooperative arrangements (e.g., joint ventures, limited partnerships, teaming arrangements, or collaboration and consortium arrangements) are permitted and encouraged.

Small, Small Disadvantaged (SD), and Service-Disabled Veteran-Owned Business Concerns, and Veteran-Owned (VO) and Woman-Owned (WO), and Historically Underutilized Business Zone (HUBZone) Small Business Concerns, and Historically Black Colleges and Universities (HBCU) and Minority Institutions (MIs) are encouraged to submit proposal concept papers on their own and/or in collaboration with others. However, no portion of this BAA will be set aside or reserved exclusively for these types of organizations.

EXCHANGES OF INFORMATION: BEFORE SUBMITTING A PROPOSAL

Those interested in responding to this BAA are strongly encouraged to first contact one of the technical contacts identified in Appendix A, to discuss the prospective idea, its potential responsiveness to the BAA, and potential for FRA interest. Taking this action could forestall costly effort on the part of interested parties whose proposed work may not be of interest to the FRA under this BAA.

Any exchanges of information must be consistent with procurement integrity requirements of section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423, as amended) (see Federal Acquisition Regulation (FAR) 3.104).

Offerers are advised that an indication of interest, in the affirmative, does not imply nor in any way imparts an obligation on the part of the Government that an award will be forthcoming for the offered work or project. All non-technical inquiries should be directed to the Grants/Contracting Officers, Mr. Robert Carpenter (Tel: 202/493-6153, Fax: 202/493-6171, E-mail: robert.carpenter@fra.dot.gov) or Ms. Illona Williams (Tel: 202/493-6130, Fax: 202/493-6171, E-mail: illona.williams@fra.dot.gov). After submission of proposals, all exchanges (both technical and non-technical) will be conducted through the Grants/Contracting Officers in accordance with FAR 15.306.

BAA TIME LINE

BAA 2005-1 will be open from the date of posting through December 30, 2005. The FRA will accept proposal concept papers as of the posting date. Unless BAA 2005-1 is superseded or canceled, FRA will continue to accept concept submissions and inquiries through December 30, 2005. Although the BAA is open for an extended period, interested parties would be well advised to submit proposals as early as possible. Reviews will be conducted continuously on receipt of concept papers. Offerers will be notified as soon as initial reviews are completed. FRA's target for initial review results is 60 days after submission.

SOURCE FOR BAA DOCUMENTS

The BAA 2005-1 package may be downloaded or printed from the following Internet address: <http://www.fra.dot.gov/>, and then through the choices of Passenger Rail (from upper left home page menu), Financial Assistance (on the drop down menu), Funding for High Speed Rail (center of Financial Assistance page), Rail Demonstration Funding Opportunities, Broad Agency Announcement. The FRA does not intend to make the BAA 2005-1 Package available in paper copy.

FUNDING AUTHORITY AND RELATED INFORMATION

Funds for this program are authorized in the Consolidated Appropriations Resolution, 2005 (Division H – Transportation, Treasury, Independent Agencies, and General Government Appropriations Act, 2005), Public Law 108-447 (December 8, 2004). FRA may make available up to \$5.0 million under the BAA during fiscal year 2005 (FY 05), through the BAA 2005-1 open period, for awards of proposal concept papers evaluated favorably and determined by the FRA to be consistent with the objectives of this BAA and of interest to the Government, and for which adequate funding exists.

No funding provision or commitment can be made at the time of award for phased or expanded work or projects beyond the initial or base phase funded at time of award that the applicant may propose in its submissions. In the event future appropriated funds are authorized for the

Program, FRA may, at its discretion, provide additional funding for phased or expended effort under existing awards.

Project Funding Range

Awards may be of any dollar value (so long as those amounts do not exceed the total amount available under the BAA), but it is anticipated that most, if not all, individual awards (or that part of the Government's portion in a cost sharing arrangement) will have dollar values ranging between \$25,000 and \$500,000 each. In the Non-Electric Locomotives and Passenger Equipment Systems area, it is anticipated that a single award may be as large as \$4,000,000, or multiple projects of up to approximately \$4,000,000 in total value may be awarded. Prospective offerers are advised that contract awards greater than \$500,000 will generally require the awardee (except a small business concern) to already have in place or prepare, at or before the time of award, an acceptable plan to maximize the participation of small business enterprises to include separate goals for using small and SD businesses, and WO, VO, and HUBZone small businesses as subcontractors. Prospective offerers are advised that contract awards greater than \$500,000 may require the submission and certification of cost and pricing data.

Cost Sharing

Although cost sharing by awardees is not mandatory under this BAA, because of the potential for long-term benefits to those firms or institutions involved in these research development and demonstration activities, it is FRA's policy to obtain cost participation whenever possible. This is preferred when FRA supports efforts where the principal purpose is ultimate commercialization and utilization of the technologies by the private sector, and when there are reasonable expectations that the offerer will receive present or future economic benefits beyond the initial contract or agreement as a result of the effort.

For the purposes of this BAA, cost participation is a generic term denoting any situation where the Government does not fully reimburse the offerer for all allowable costs necessary to accomplish the project or effort under the contract or other award instrument. The term encompasses cost sharing, cost matching, participation in-kind, or other investment of resources as a means of venture sharing in lieu of a formal cost sharing arrangement, third-party in-kind contributions, cost limitations (direct or indirect) and similar concepts. Generally, many forms of cost participation, by their very nature and definition, minimize or negate the opportunity for profit or fee.

Funding Mechanism for States and Local Governments

State or local government entities are only eligible for funding through a cooperative agreement resulting from this Broad Agency Announcement. The Federal government does not "contract" with a states or local government entities.

Once an organization's concept paper (see page 15) is evaluated and approved by FRA for funding, the prospective awardee for a Cooperative Agreement will be instructed to submit an electronic application through the website www.grant.gov. The term "grant" on this web site includes cooperative agreements. Paper applications for a cooperative agreement will not be

accepted. All organizations who may be interested in applying for a cooperative agreement resulting from this BAA opportunity must register on the web site and should become familiar with its function. The web site provides clear guidance for the registration process.

Three preliminary steps are required before registering with and using the www.grants.gov web site:

First, a prospective grantee must have a Dun and Bradstreet number (DUNS). If your organization does not have a DUNS number, one can be obtained telephonically at (866) 705-5711 or be visiting <https://eupdate/dnb.com>.

Second, the organization must be registered in the Federal government's Central Contractor Registry (CCR) found at 222.ccr.gov. Please note, CCR registration cannot be completed without a DUNS number.

Third, to view grant application instructions and complete an application, you will also need to download and install Pure Edge Viewer available at: <http://atweb.grants.gov/DownloadViewer>. This small, free program will allow you to access, complete, and submit electronic applications through the secure web site.

Funding Mechanisms for Other Than States and Local Governments

These can take the form of either a contract or a cooperative agreement, depending upon the nature of a particular project and discussions between the Federal Railroad Administration and the offerer.

Authorized Commitment From Government

Prospective offerers are cautioned that only the cognizant Grants/Contracting Officers can legally commit the Government to the expenditure of public funds under this BAA.

PART III - TECHNOLOGY APPLICATION AND AREAS OF INTEREST

TECHNOLOGY APPLICATION

Any technology forming the basis for a proposal must be capable of helping achieve one or more of the objectives, as described in the BAA Objective (page 4). This may include improvements to railroad capital equipment or infrastructure, such as track, rolling stock, wayside equipment; traffic control centers; interfaces among these, or as an improvement to railroad operating methods. The scope may include adaptation, implementation, testing or demonstration of candidate technologies, which have been successfully applied in other industries, such as defense industries, and/or are near ready for direct application in the railroad industry. FRA also invites proposals for the integration and subsequent evaluation of multiple independent (commercial or non-commercial) technologies, where the integrated product may offer substantial advantage beyond that offered by the components.

FRA expects to emphasize generally mature technologies in its selection of proposals for award, but it may give consideration to less mature, but highly promising or unique technologies or innovations. Please note that in general, research studies or analyses which result only in research reports will not, for the purposes of this BAA, be of as great of interest to FRA as those that involve actual testing, demonstration or application of the proposed concept or technology.

AREAS OF TECHNOLOGY INTEREST

Subject areas of greatest interest for this BAA are listed here, with further detail and background provided in sections below:

- **Grade crossing hazard mitigation systems**
 - **Warning activation systems**
 - **Status identification and notification systems**
 - **Obstruction detection**
 - **Risk assessment methodologies**
- **Trespasser hazard mitigation and ROW security**
 - **Fencing alternatives**
 - **Risk assessment methodologies**
- **Track and structure performance and roadway upgrading methods**
- **Advanced train control systems**
 - **Track switch position and status (point lock) notification**
 - **Situational awareness systems**
 - **Full train control systems**
- **Nationwide Differential Global Positioning System (NDGPS)**
 - **Improvements to the accuracy, integrity, and anti-jam capability of NDGPS system**
 - **Improvements to interference rejection, anti-jam capability, accuracy and integrity of the railroad NDGPS receiver**
 - **Development of railroad receiver standard for NDGPS and PTC**
- **Non-electric locomotives and passenger equipment systems**
- **Other scientific study, technology adaptation, or demonstration directed toward advancing the state-of-the-art or increasing the knowledge or understanding of high-speed passenger rail service in the U.S.**

(1) Grade crossing hazard mitigation systems

Highway rail grade crossings are a major safety and investment issue in achieving increased train speeds. One of FRA's specific objectives is to reduce the number of injuries and deaths resulting from crashes at highway-rail crossings. This becomes especially important as more modern passenger train consists allow speed regimes to increase toward and above 110 mph. FRA is already pursuing several research, development and demonstration projects in this area, but continues to be interested in all feasible technologies that will advance grade crossing safety.

An

objective for all of these technologies is to provide nearly the same security as grade separations but at much lower cost.

New technologies are needed which will protect both the rail and highway users without incurring the disruption of grade crossing closure or the cost of grade separation by bridge or tunnel. Specific issues include the design of highway warning and protection devices, train detection and communication, and grade crossing obstruction detection sensing and communication. Candidate technologies, some of which are already in place in other countries, include: inductive loops, ultrasonic, microwave or laser beams, and video surveillance. Numerous sensor and command-and-control technologies that have been developed for other usages could find ready application in the grade-crossing protection area. Many crossings on potential high-speed corridors are equipped only with passive crossbuck warning devices. Traffic density on many of these crossings may not warrant even conventional gates and lights, and alternative systems that can reliably warn highway users while protecting train operations are sought. Other areas of particular interest are train detection, intrusion alerts, constant-warning-time logic, train control interface, driver warning, and crossing malfunction response facilitation.

The FRA is also interested in risk assessment methodologies that identify locations of particular safety or operational concern. The industry is beginning to use video monitoring equipment in combination with “black box” technology to record events of interest. These systems may provide significant data improve resource allocation and prioritization.

Potential offerers are cautioned that grade crossing hazard mitigation systems are plentiful and many provide excellent performance. Many systems involving emerging technologies have stumbled on the high reliability and availability requirements for viable systems. Offerers are urged to carefully review the current state of the art and clearly describe how any proposed innovation will improve performance above that currently available with existing systems.

(2) Trespasser hazard mitigation systems and ROW Security

Increasingly, trespassers and right of way obstructions and security are a significant concern for intercity and commuter rail operators. Cost effective methods for securing rights-of-way and for monitoring fence conditions are sought. In addition, techniques for identifying high risk areas and mitigating hazards including low cost and attractive alternatives for preventing or detecting entry by trespassers may provide useful reductions in accident rates. The Video monitoring systems being developed (as mentioned above) may have a broad application in accident and incident investigation aiding in source causal data in the area of trespassing or other defects.

Potential offerers are strongly cautioned that any proposed system or risk identification methodology must clearly identify the potential benefits to the railroad operation. Railroads currently use numerous surveillance and fencing systems to monitor and secure the right-of-way. Any new system or methodology will be judged relative to existing practices. Offerers are urged to carefully review the current state of the art and clearly describe how any proposed innovation will improve performance above that currently available with existing systems.

(3) Track and structure performance and roadway upgrading methods

A major cost element in the introduction of high-speed passenger service is in upgrading and maintaining the track and roadway. Of interest are technologies and methods for providing a more durable track structure to support and sustain higher speeds and the resulting dynamic loads, improving construction materials or methods, lengthening maintenance cycles, and detecting potentially dangerous situations. Methods for improving track quality sufficient for high-speed operations while minimizing life cycle costs are the highest priority.

Some specific areas of interest are:

- Methods for improving and maintaining better ride quality at bridge approaches and through turnouts.
- Rail break detection systems capable of operating when a train is occupying or closely approaching a section of track, unlike present systems that are defeated by trains shunting the rails of a track section.
- Automated inspection techniques that relate specifically to maintenance of high-speed operations, such as wheel and rail profile conditions, turnout and diamond (track crossing) geometry.
- Cost-effective methods for providing additional track capacity, especially for areas where right-of-way expansion is restricted.
- Cost effective methods to reduce trespassing incidents.

The results of projects must show potential significant savings in: initial facility construction costs, capital or maintenance costs, or costs of upgrading freight-quality mainline track for higher speed passenger operations.

Potential offerers are cautioned that track and roadway structures have been developed over 150 years and are highly optimized for the expected service. Offerers are urged to carefully review the current state of the art and clearly describe how any proposed innovation will improve performance above that currently available with existing systems.

(4) Advanced train control systems

While advanced train control systems are essential for high-speed passenger operations, their cost is often cited as a major impediment to the introduction of service over 79 mph. FRA regulations require that the controlling locomotive of all trains on an equipped line be capable of using the train control system, so applying a system to permit high-speed rail necessarily impacts freight equipment and operations on those routes as well. The FRA's goal is to maximize the capacity of railroads to carry a mix of high-speed passenger, commuter, and freight trains with minimal risk of collisions and accidents and at considerably lower installation cost than for conventional railroad signal and control systems.

FRA is already sponsoring or participating in several major demonstration projects in the area of advanced communications-based train control (See **Appendix C**). Briefly, major elements of these systems are:

- position determination subsystems that automatically determine the exact location of a train on the rail network;
- a computer on-board the locomotive that receives and processes information from the dispatch center, a central office server for a office-centric system, wayside devices, and other sources for enforcing operating rules or providing better situational awareness;
- sensor and communication systems that provide track switch status information to dispatching centers or directly to train operators;
- digital or technologically advanced communication links between the train and central dispatching centers or other wayside facilities;
- software that aids dispatchers in planning the meeting and passing of opposing or faster trains while assuring the safety of authorized train movements; and
- capabilities that aid in the strategic planning of the rail network on a system scale.

In one such system, the Incremental Train Control System (ITCS), which is now in revenue service operation on Amtrak-owned track in Michigan, taps into the existing signal system for status information, and then radios the status information to each train. An onboard computer then combines the status, automatic location, and database information to inform the engineer of safe operating conditions. The onboard computer limits the speed and/or stops the train if unsafe operation is attempted. The Illinois DOT Positive Train Control (IDOT PTC) project now being implemented by the North American Joint Positive Train Control (NAJPTC) committee of the Association of American Railroads (AAR), Illinois Department of Transportation (IDOT), Union Pacific Railroad (UPRR) and FRA is being installed on a 123-mile segment of the Chicago to St. Louis corridor in Illinois.

The IDOT PTC system will use movement authority commands radioed to each train from Union Pacific's central dispatch center. In the Pacific Northwest, FRA is cooperating with Union Pacific Railroad and Burlington Northern Santa Fe Railroad to demonstrate advanced digital radio transmission techniques. Other projects involve precision location determination systems and rail break detection systems.

In view of the demonstration activities already underway, it is not anticipated that the scope of projects under this BAA will permit development or demonstration of complete new PTC systems. However, FRA remains interested in additional new concepts, components and innovations that can reduce the cost of implementing these systems.

Train control systems when coupled with management information systems may be able to reduce congestion and increase track capacity, as well as facilitate a number of maintenance and operational activities. Major elements of the systems that increase the overall cost of train control are the individual cost of small elements, such as the onboard computer required on most of the locomotives operating in a corridor or the cost of wayside units that determine track switch

position or the state of some other feature and communicate this information to trains and central or regional centers. Also critical is the amount and timeliness of information and how this governs the communications requirements.

Potential offerers are cautioned that train control systems and components are required to perform at very high reliability and availability levels and to provide clearly identifiable safety benefits compared with conventional train control systems. Offerers are urged to carefully review the current state of the art and clearly describe how any proposed innovation will improve performance above that currently available with existing systems.

(5) Nationwide Differential Global Positioning System (NDGPS)

The Federal Railroad Administration is the lead agency of nine federal agencies working to develop the Nationwide Differential Global Positioning System. NDGPS is needed for Positive Train Control and is also an enabling technology for automated railroad surveying systems and accurate rail defect detection. FRA and the other agencies are exploring new signals that can be added to the NDGPS system to improve the accuracy, integrity, anti-jam capability and overall signal robustness.

FRA is also investigating improvement to the NDGPS receiver that is used on locomotive and end of train devices for Positive Train Control. The objective is to improve the accuracy, integrity, anti-jam capability and EMI rejection within the receiver.

In addition, FRA is developing a railroad NDGPS receiver standard for use with Positive Train Control systems. The standard will mitigate the EMI noise of the locomotive, improve the accuracy, integrity, anti-jam capability and overall robustness of the receiver. The goal is to develop a low cost commercial-of-the-shelf NDGPS receiver that is specifically designed to meet the needs of the railroad industry.

(6) Non-electric locomotives and passenger equipment systems

This project area is to facilitate the introduction of technologies that will significantly improve the performance, lower the initial cost or reduce the cost of on-going maintenance of high-speed passenger equipment including non-electric locomotives. The term "non-electric," as used here, refers to a self-contained locomotive or trainset that generates its own propulsion power on board without continuously connecting to electric transmission wire or third rail. The term "non-electric" is not intended to preclude use of electrical transmission methods to transfer onboard-generated power to traction motors. The desired goal for non-electric locomotives is that they be capable of sustained speeds of at least 125 mph, and that they be fuel efficient, meet noise and air pollution requirements, and be reliable, with low maintenance costs, and to achieve the speed and acceleration capability of electric trains without the expensive infrastructure of railroad electrification.

To avoid duplication of efforts, prospective offerers are advised that the FRA has the following three major activities underway in the category of non-electric locomotives:

- (1) FRA and Bombardier Transportation have jointly sponsored construction of a 5,000 horsepower Turbine Electric Locomotive (TEL) capable of 150 mph and meeting all current FRA safety standards. The TEL has completed extensive high-speed testing at the Transportation Technology Center in Pueblo. The TEL project is coordinated with the Advanced Locomotive Propulsion System (ALPS) project, led by the University of Texas, which will produce a flywheel energy storage system and a high-speed generator system capable of generating traction power when directly driven at gas turbine engine rotation speeds of approximately 15,000 rpm.
- (2) FRA has funded a revenue-service demonstration of Diesel Multiple Unit (DMU) vehicles that fully comply with all current FRA safety standards. A demonstration project is currently underway in cooperation with FL-DOT and the South Florida Regional Transportation Authority which will demonstrate the two trainsets.
- (3) FRA awarded a cooperative agreement to the New York State Department of Transportation (NYSDOT) to demonstrate and evaluate upgraded Rohr Turboliner (RTL) trainsets utilizing gas turbine engines and hydraulic transmissions. Both of these upgraded trainsets have been completed.

Technology concepts eligible under this BAA could include:

- Advanced propulsion concepts utilizing alternative power sources, energy storage, energy conversion and/or fuels which would result in higher locomotive performance, higher efficiency, lower weight, and/or reduce life-cycle costs through improved reliability and maintainability.
- Advanced truck, motor and/or suspensions systems that improve the dynamic performance of existing or new high-speed equipment and/or reduce life-cycle costs through improved reliability and maintainability.
- Proposal concepts in the area of non-electric locomotive propulsion systems that are complementary to the efforts underway in the three major activities in this area described above.
- Automated diagnostic methods that can be integrated with train communications networks to reduce the cost of maintaining rolling stock and equipment, including systems capable of monitoring critical systems, such as the brakes, wheels, trucks and doors.
- Technologies to reduce overall and/or unsprung mass of high-speed passenger equipment while maintaining or improving crashworthiness.

Potential offerers are cautioned that non-electric locomotives and passenger equipment are highly optimized for the expected service. Offerers are urged to carefully review the current state of the art and clearly describe how any proposed innovation will improve performance or efficiency above that currently available with existing systems.

(7) Other scientific study, technology adaptation, or demonstration directed toward advancing the state-of-the-art or increasing the knowledge or understanding of high-speed passenger rail service in the U.S.

The purpose of this area is to facilitate the award of worthy technology adaptation and demonstration projects that are not focused in the areas above but can still advance high-speed rail service. Some topics could be in areas such as lightweight, crashworthy structures or components, noise mitigation and other environmental issues, variable platform height access, and low cost wheel, truck, and brake assemblies and inspection procedures.

PART IV - PROPOSAL CONCEPT PAPERS AND PREPARATION INSTRUCTIONS

FUNCTION: For the purposes of this BAA, proposal concept papers are considered offers and should contain the offerer's best terms from both a cost or price and a technical standpoint. Successful proposal concept papers may be used, in whole or in part, as the basis for award in any ensuing contract or other award instrument as the scope of work, statement of objectives, or work statement, or they may be used as the basis for negotiations and subsequent award pending the submission of any additional or supplemental information or clarification, as requested.

CONTENT AND FORMAT: Proposal concept papers must be:

- Not longer than **twenty (20)** pages (except as otherwise noted)
- Printed in letter font no less than 10 point type
- Submitted on letter-size paper with pages numbered
- Fully legible in all required copies.

Each concept should be submitted only once. An offerer's submission of substantially the same concept (under different topical Areas of Interest) will only be evaluated once. FRA will consider each proposal concept paper in the topical Area of Interest identified in the BAA that is most relevant and provides for the greatest opportunity or chance for award.

Proposal concept paper submissions should not include promotional brochures, advertisements, taped recordings, or other extraneous material.

Proposal concept paper submissions must contain a Technical Concept Section and a separate Cost or Pricing Section (not counted in 20-page limit). A separate Past Performance Information Section (not counted in 20-page limit) is also required from all offerers other than states or local governments, or organizations of state or local governments, or universities or institutions of higher education where the total estimated project cost is \$100,000 or greater. A separate Optional Phased or Follow-on Section is required for concepts involving phased or follow-on projects.

Offers (i.e., proposal concept papers) being pursued as cooperative agreements, or which FRA subsequently determines should be funded through a cooperative agreement, must include reference to the appropriate registration and application information entered through the www.grants.gov web site (see Funding Mechanisms, pages 7-8).

Submissions that are incomplete, materially lacking, or not responsive to the technical requirements of this BAA, may be returned unevaluated, or evaluated as is, without further opportunity for revision, at the discretion of the Source Selection Authority.

To facilitate evaluation, proposal concept papers should fully address the content requirements described in this subpart and be formatted as follows:

Section A - Technical Concept

1. Title - Provide a working title descriptive of the research or technology advancement project being proposed.
2. Applicant/Offerer - Provide the name, address and telephone number, and ownership characteristics of the individual, company, state or local government, educational institution or non-profit organization submitting the proposal concept paper. In a proposed cooperative arrangement, one entity, by agreement, must be designated as the lead applicant/offeree (and prospective awardee, if selected). (Note: Letters or statements formally attesting to a cooperative arrangement need to be provided here, but do not count toward the 20-page limit). The applicant/offeree should also identify (a) the principal investigator and/or key persons; (b) one or more authorized negotiators for the applicant/offeree, (c) the official(s) with authority to legally bind the applicant/offeree to the terms of any award; and (d) the participating entities in any proposed cooperative arrangement, subcontractors, or consultants. Identification for secondary organizations should include name and address. Identification for individuals should include name, title or functional role, telephone number, fax number, and e-mail address.
3. Applicant Capabilities - Describe the applicant's/offeree's relevant technological and scientific, railroad or other industrial or defense capabilities, experience, and resources (or those of its team members) that will serve to demonstrate its ability to successfully conduct the proposed technology advancement project. List or chart team members/partner's primary functions or areas of responsibility. Describe the applicant's/offeree's (or relevant team members/partners') familiarity with or position in the railroad community and access to necessary equipment or facilities. Describe the management processes that will be put in place for monitoring and controlling project implementation and ensuring that the triple constraints of performance/quality, cost/budget, and timeliness/delivery are fulfilled. For the principal investigator or key personnel (not to exceed four persons per proposal concept paper), the applicant/offeree should also submit a one to two page resume or curriculum vitae. (Note: The resume or C.V. will not count as part of the recommended 20-page limit.)

4. Objective - Describe the key objective(s) and scope of the proposed technology advancement project.
5. Potential Application and Benefits - Explain, specifically, how the proposed technology or method enhances the ability to implement higher speed passenger operations; how it could be incorporated into existing railroad equipment, infrastructure, or operations (to include how major barriers, impediments or obstacles could be overcome or mitigated); and the interface modifications required to accomplish a demonstration. Also explain how its application will bring about an improvement to capital equipment or infrastructure, or operating methods, safety, economy, and/or performance improvements. Correlative benefits to general railroad operations, if any, should also be cited, since they can also enhance the feasibility of passenger service added to freight routes. Quantitative support should be provided for assertions made.
6. Maturity, Adaptation, and Innovation - Outline the current level of maturity of the proposed technology or method and the amount or type of development or modifications needed for high-speed rail adaptation and demonstration. Include necessary background information and how they are used in their current applications, and identify the area(s) of high-speed rail application, in both hardware and performance venues. Describe how the proposed research or technology is technically or scientifically innovative, either in itself or in its application to high-speed rail.
7. Demonstration Description - Describe how the proposed technology or method will be demonstrated. The effort should be broken down into logical elements of work tasks and subtasks that support the approach or plan of action to achieve key milestones or interim objectives, and end objectives. Describe the steps/tasks/activities necessary to achieve the desired result or successful project completion. Identify deliverables, presentations, and demonstrations.
8. Test Bed - Outline the test requirements, environments and methods needed to assess or demonstrate the suitability of the technology in the railroad environment and the success of the proposed project. **It is important to cite railroad companies or other rail-related organizations, such as railroad industry suppliers, that have expressed their willingness to permit and/or support such testing or demonstrations. (Note: Letters or statements attesting to an outside organization's interest or commitment to permit and/or support testing or demonstrations should be furnished with the proposal concept paper).** Such letters or statements will not count as part of the 20-page limit. Such letters or statements, if not furnished with the initial submission, may be requested and shall be furnished to assist in the evaluation and selection process.
9. Project Duration - Provide a realistic schedule that identifies and charts or tracks the target completion dates or time parameters to accomplish key milestones or interim objectives, and end objectives and the performance of demonstrations or presentation, or delivery of reports, data, models or other deliverables. Include in the schedule time required to complete any remaining development or required modification to the technology prior to readiness for demonstration. This should include an explanation of the relevant assumptions required for the stated schedule. For the purposes of this BAA,

projects or phases of projects should generally be one to two years. For the specific project or project phase being proposed (and to be funded initially when follow-on or phased portions are proposed), include a chart or schedule of key milestones for completion. (See Part IV, Section D - Phased or Follow-on Research Projects, below.)

Section B - Cost or Pricing

The cost or pricing portion of the proposal concept paper must contain a cost estimate for the proposed effort to allow for meaningful evaluation and determination of price reasonableness and cost realism. Unless and until advised otherwise, cost information submitted with the concept paper will be considered “information other than cost or pricing data.” The cost estimate may be prepared using the applicant’s own format or as indicated in Table 15-2 of FAR 15.408. The cost estimate shall account for the entire cost of the project, inclusive of that portion of cost the applicant or other participants would bear in any proposed cost sharing arrangement or other investment of resources as a means of venture sharing in lieu of a formal cost sharing arrangement. The cost estimate shall be broken down for each year of the proposed work, and by all years combined. At a minimum, the cost estimate shall include the following information:

1. Labor - A breakdown of direct labor, by major tasks or milestones, identifying the labor categories or individuals and projected hours, and their associated subtotals.
2. Overhead and/or Fringe - Labor overhead and/or Fringe rate(s) and base(s), and cost outcome.
3. Materials, supplies, and equipment - Description and cost of materials, supplies, and equipment, to include the basis of the cost estimate (e.g., historical data, competitive market quotes, in house transfers, etc.). Specific mention should be made of any highly specialized or costly test equipment or supplies needed to accomplish the project.
4. Travel and transportation - Breakdown of travel and transportation costs.
5. Subcontracts - Breakdown of individual subcontracts. State the amounts of time of subcontractor/consulting services to be devoted to the project, including the cost to be charged to the proposed contract/agreement.
6. ODC - Breakdown of other direct costs (reproduction, computer time, consultants, etc.)
7. Misc. - Identification of any other direct or indirect cost elements not identified elsewhere. For each indirect rate (identified here or elsewhere), indicate (if known) whether the proposed indirect rate and allocation base have been approved by a Government audit or cognizant agency for use in proposals and when the rate(s) was approved and the name of and telephone number of the cognizant auditor or approving official.
8. General and Administrative - G&A rate and base, and cost outcome.

9. Profit or fee - Generally, the FRA does not anticipate providing profit or fee under contracts awarded under the BAA, because of the potential for long-term benefits to those firms or institutions involved in these demonstration activities, the advanced stage of development and reduced level of risk associated with such projects, and the reasonable expectation that the performer will receive present or future economic benefits beyond the instant contract/agreement as a result of performance of the effort. However, profit or fee may be proposed, and if proposed, subject to final negotiations, may be allowed when the prospective offerer demonstrates to the satisfaction of the Grants/Contracting Officer that it has no commercial, production, educational, or service activities on which to use the results of the research and no means of recovering any cost participation (including relinquished profit or fee) from such projects for its financial gain. Under these circumstances, the Grants/Contracting Office may determine (on a case-by-case basis) that cost sharing or other cost participation does not apply, and further that fee may be applicable. The applicant/offerer should also specifically note if profit or fee is not sought/proposed.
10. Cost Sharing/Cost Participation - Identify extent of cost sharing/cost participation, if any (exclusive of the applicant's/offerer's prior investment), to include the actual dollars or the percentage of the cost share of the proposed research or technology project, to be provided by the applicant, or third party contributors or other Federal funding sources, if allowable; the type and extent of cost limitations (direct or indirect); or the specifics for and extent of similar concepts indicative of cost participation. (Note: The applicant may be required to certify that it has secured the appropriate cost share funding levels, and identify the source of funding. **Letters or statements attesting to an outside organization's intent to furnish funding or third-party in-kind contributions or the like should be furnished with the proposal concept paper.** Such letters or statements will not count as part of the recommended 20-page limit. Such letters or statements, if not furnished with the initial submission, may be requested and shall be furnished to assist in the evaluation and selection process.) The value of any proposed cost participation in the form of participation in-kind or other investment of resources as a means of venture sharing in lieu of a formal cost sharing arrangement, or third-party in-kind contributions, must be assessed by the Government. (Note: These latter forms of cost participation are best suited for and may only be applicable as the applicant's cost share/match in a grant or cooperative agreement award.)

Section C - Past Performance Information

As a separately bound part of its proposal concept submission, the offerer (excepting states or local governments or organizations of state or local governments, or universities or institutions of higher education) is to provide past performance information in the form of a contract reference list and preliminary survey data for projects valued at \$100,000 or more. (Note: The past performance information will not count as part of the recommended 20-page limit.)

Past performance information is relevant information, for source selection purposes, regarding a contractor's actions under previously awarded contracts. Past experience reflects *whether* the contractor has performed similar work before. Past performance, on the other hand, describes

how well the contractor performed the work. Past performance information can be one important indicator of the offerer's ability to successfully perform a proposed contract. It includes for example, the contractor's record of conforming to contract requirements and to standards of good workmanship; its record of forecasting and containing costs; its adherence to contract schedules, including the administrative aspects of performance; its history of reasonable and cooperative behavior and commitment to customer satisfaction; and its business-like concern for the interest of the customer. It also includes the contractor's resourcefulness in overcoming challenges that arise in the context of contract performance.

1. Contract Reference List - The past performance information contract reference list shall include the identification of three (3) government (Federal, state or local) or commercial contracts/orders (each of which has/had an aggregate value of at least \$25,000) that the offerer* has performed and asserts are relevant to the subject proposal concept and demonstrative of its capabilities to successfully perform substantially similar work. The greater the similarity in scope and complexity and technical nature of the referenced contracts/orders to the research project, technology advancement and/or demonstration being proposed under the subject BAA, the greater the perceived relevancy. The burden of proving acceptability of past performance is the responsibility of the offerer.

Contracts/orders advanced by the offerer should be either-

- (a) on-going contracts/orders awarded within the last 3 years and in which the offerer has performed for at least six months, or
- (b) contracts/orders that ended within the last 3 years, but in which some part or all of the performance occurred within the last 3 years from the date of proposal submission.

**For the purposes of this contracting action, relevant past performance under these contracts/orders may be that of the offerer itself (as a prime contractor or a subcontractor under the referenced action) and its key personnel, or that of a subcontractor, consultant or party to a cooperative arrangement who will be directly involved under the proposed research project, technology advancement and/or demonstration, provided that (1) the entity or individual will be performing the substantially same type of effort/requirement and in the substantially same capacity as that upon which the relevant past performance assertion is made, and (2) the entity or individual will be performing 50% or more of the effort involved, in terms of the estimated total contract cost.*

The contract reference list should recap, for each reference, the name of the awarding agency/firm, contract/order title, contract number, point of contact and telephone number, and e-mail address, if available. The offerer must ensure that points of contact, telephone numbers, etc. for its listed contract/order references are current, complete and accurate. Significant problems encountered in checking references provided by the offerer will generally be considered a lack of due diligence on the part of the offerer and may be considered in the selection process.

If the offerer has received fewer than 3 contract awards within the last 3 years having an aggregate value of a least \$25,000, the offerer should provide information on the number of contract awards available for referencing. If the offerer has not received any contract awards within the last 3 years having an aggregate value of a least \$25,000, the offerer should state that fact.

2. Preliminary Survey Data - Preliminary survey data shall be comprised of the following- For each contract reference, the offerer shall complete and submit Part I - Administration and Part II - Relevancy/Perspective of the Contractor Past Performance Survey (**Appendix B**). This Appendix is available for downloading from the FedBizOpps.gov web site in the Solicitation BAA-2005-1 under DOT/FRA. For **Part I** of the survey, the offerer will complete the identifying and administrative information sought for the specific contract in question. For **Part II**, the offerer will complete and insert a single page that addresses the following three areas of inquiry (as described in the survey): Description of Prior Contract Services, Relevancy, and Problem Resolution and Quality Honors. The text of the offerer's responses for all three inquiries combined shall not exceed one page.
3. As early as possible in the proposal preparation phase, offerers should send each of their references a copy of the Contractor Past Performance Survey (or advise them of its location on the FedBizOpps or FRA web sites) and a letter that, in effect, authorizes its private sector reference to provide past performance information, when and if requested by FRA, and alerts its government references that information may be requested from another government agency. Offerers should advise references that in addition to completing **Part III** of the survey (when and if requested), they may be contacted, at the Government's discretion, and asked to consent to a telephone interview, using the survey as the starting or focal point of the interview.
4. Offerers are advised that any relevant contractor performance/customer evaluations previously prepared within the last three years by the agency/firm (the reference), and subsequent responses or rebuttals from the offerer/contractor, may be requested of the reference to augment or furnished in lieu of the survey or interview.
5. References should be advised that when and if they are requested to complete a survey by FRA, they are to send the completed survey directly to the FRA at the address(es) identified in the Survey and not to the offerer seeking a reference, nor are they return a duplicate to the offerer. This does not preclude the reference from advising the offerer that a survey was completed and submitted, or an interview conducted, if it so chooses.
6. To ensure frank and open evaluations and expressions of opinions by evaluators or others, all parties are advised that the identity of respondents completing the survey will be held in confidence and will not be released or disclosed to the offerer outside the Government. However, as specified under FAR 15.306, conditions may exist in which the offerer may be provided an opportunity to discuss adverse past performance information on which the offerer has not had a previous opportunity to comment.

7. Technically acceptable proposal concept papers that are considered realistic and reasonable, in terms of proposed cost, and fee, if applicable, will be subject to a review of past performance information provided by the offerer or obtained from sources other than those identified by the offerer, and used in assessing performance risk, making a responsibility determination, and making a best value decision. References provided by the offerer or sources other than those identified by the offerer may be contacted at this stage and advised of a specific date that completed surveys should be submitted to FRA. References will generally be allowed a minimum of 3 working days to respond by facsimile (with original to be provided upon request). Offerers are advised that time is of the essence, and that if Surveys are not received by the time specified or references otherwise do not avail themselves for an interview, the offerer may be assessed as an unknown performance risk and assigned a neutral performance rating.
8. Offerers are reminded that a past performance rating is not a precise mechanical process and will usually include some subjective judgment. It is a comparative evaluative process that seeks to identify the level of risk associated with contracting with each offerer. The resulting evaluation is a reflection of the degree of confidence the Government has in the offerer's likelihood of success.
9. Upon request, past performance information may be made available to other Federal procurement activities. However, past performance information about an offerer shall not be provided, without the offerer's consent, to any private party, except where the agency determines such information must be released pursuant to the Freedom of Information Act.
10. On the rare occasion that there is no information on past contract performance, or no relevant past performance information, the offerer's lack of past performance will be treated as an unknown performance risk. In such cases, past performance will be treated as "neutral," that is to say the offerer will not be evaluated favorably or unfavorably on the factor of past contract performance. This will be accomplished by assigning the offerer(s) without a [relevant] performance record, the mid-range score available for any numerical or quantitative rating used, or an equivalent value in any adjectival or qualitative rating used.

Section D - Phased or Follow-on Projects (*Optional - For Informational Purposes Only*)

When a follow-on project phase is proposed which is beyond that project being advanced in the proposal concept submission (for initial funding), the applicant may include a separate, supplemental section outlining the follow-on work or phased project activities the applicant maintains would be necessary or beneficial to bring the research project to final completion. A realistic cost estimate for each additional phase or follow-on project should also be provided. Supplemental section submissions generally should not exceed 3 - 5 pages. (Note: This 3 - 5 page summary supplement will not be counted as a part of the recommended 20-page limit.) Applicants whose projects would not require additional phases or follow-on project activities beyond the activity in the project being advanced in the proposal concept submission (for initial funding), may disregard this section.

PART V - EVALUATION CRITERIA, EVALUATION PROCESS, AND AWARDS

EVALUATION CRITERIA

Proposal concept papers (and other submissions, if and when requested) will be evaluated using the following criteria, which are listed in descending order of relative importance:

A. Technical Factor:

1. *Responsiveness to BAA Intent and Requirements:* Degree to which proposal meets the conceptual intent and submission requirements of the BAA.
2. *Significance for Implementing Higher Speed Rail and Fit with FRA Mission:* Degree to which successful implementation of proposed idea would make higher speed rail more technically or economically practical; includes contribution to cost effectiveness, reliability, safety, availability, or maintainability, and fit within FRA mission.
3. *Technical Merit:* Degree to which proposed ideas exhibit a sound scientific and engineering basis; how well the proposed ideas could be practically applied in, and would be compatible with, the railroad environment; perceived likelihood of technical and practical success.
4. *Key Personnel and Supporting Organization:* The technical qualifications and demonstrated experience of key personnel proposed to lead and perform the technical efforts; qualifications of primary and supporting organizations to fully and successfully execute proposal plan within proposed time frame and budget.
5. *Cost and Relative Value:* Affordability and degree to which proposed effort appears to be a good value for the amount of funding requested, including extent of cost sharing.

B. Cost/Price Factor:

1. The reasonableness and realism of the proposed costs and fee (if any).
2. The extent of any proposed cost sharing/cost participation under the proposed effort (exclusive of the offerer's prior investment).

C. Past Performance Factor:

The extent or level of relevant corporate past performance, or relevant past performance by key personnel or by subcontractors or parties to cooperative arrangements. (Note: Assessments of past performance will not be applicable to offers/applications from states or local governments or organizations of state or local governments, or universities or institutions of higher education.)

EVALUATION PROCESS

All materially complete proposal concept papers submitted under this BAA will be subject to technical review in accordance with the established evaluation criteria.

Proposal concept papers which are evaluated favorably from a technical perspective and determined by the FRA to be consistent with the objectives of the BAA and of interest to the Government, and in which there are no significant or outstanding issues or areas for clarification, will be subject to a cost review.

Technically acceptable proposal concept papers that are considered realistic and reasonable, in terms of proposed cost, and fee, if applicable, will be subject to a review of past performance information provided by the offerer or obtained from sources other than those identified by the offerer (excepting those offerers previously identified as not being required to submit past performance information).

Proposal concept papers which are evaluated favorably from a technical perspective and determined by the FRA to be consistent with the objectives of the BAA and of interest to the Government, but in which there are outstanding issues or areas for clarification, from a technical, cost, or past performance perspective, must be resolved favorably before they can be advanced to each subsequent stage of consideration. In such cases, the Grants/Contracting Officer may contact the offerer and request additional or supplemental information or clarification to augment the initial submissions and assist in determining if the offer will receive further consideration.

In the case of proposal concept papers that are not evaluated favorably, contain material deficiencies or significant weaknesses, or are otherwise deemed unacceptable from a technical perspective, or that are not consistent with the objectives of the BAA or not of interest to the Government, proposers will not be afforded further opportunity to submit proposal information or revisions, will not be subject to cost or past performance review, and will be rejected/declined.

AWARDS

An offer must be found acceptable under all applicable evaluation factors to be considered eligible for award.

All evaluation factors other than cost or price, when combined, are significantly more important than cost or price alone. Technical evaluation is appreciably more important than cost or price and, as such, greater consideration shall be given to technical excellence rather than cost or price alone. Cost or price is somewhat more important than past performance and, as such, greater consideration shall be given to cost or price rather than past performance alone. Tradeoffs, as described in FAR Part 15, are also allowed.

To the extent that funds are available, awards will be made to those responsible offerers whose offers provide the best value to the Government, in terms of technical excellence, cost or price, and performance risk (as applicable), and other factors – to include consistency and accord with the objectives of the BAA and the FRA's mission and its interest in pursuing the proposed

technology advancement and/or demonstration. Awards may take the form of contracts or cooperative agreements.

Contracts will be used when the principal purpose is the acquisition of supplies or services (including research and development) for the direct benefit or use of the Federal Government.

- It is anticipated that most contracts resulting from this BAA will be cost-reimbursement type contracts (i.e., cost, cost-sharing, or cost-plus-fixed-fee). These types of contracts permit reimbursement of the actual cost of performing the contracted work, and may or may not allow for profit or fee. Cost-reimbursement contracts are suitable for use only when uncertainties in contract performance do not permit costs to be estimated with sufficient accuracy to use any type of fixed-price contract. Some contracts resulting from this BAA may be awarded on a fixed-price basis (e.g., firm-fixed price completion, or firm-fixed-price level-of-effort term contracts). Fixed-price contracts are used when the work effort can be estimated accurately and the services to be rendered are reasonably definite. Other contract types, as described in FAR Part 16, may also be used.
- To the maximum extent practicable, the Government will structure contracts awarded under the BAA using “Performance-based contracting” methods. As described in FAR Part 37.6, performance-based contracting methods are intended to ensure that required performance quality levels are achieved and that total payment is related to the degree that services performed meet contract standards. Performance-based contracts –
 - a) Describe the requirements in terms of results required rather than the methods of performance of the work;
 - b) Use measurable performance standards (i.e., terms of quality, timeliness, quantity, etc.) and quality assurance surveillance plans;
 - c) Specify procedures for reductions of fee or for reductions to the price of a fixed-price contract when services are not performed or do not meet contract requirements; and
 - d) Include performance incentives where appropriate.
- Because of the broad range of activities that may be proposed under the BAA, it does not lend itself to the use of a common work statement. As such, no single North American Industry Classification System (NAICS) code (formerly Standard Industrial Classification (SIC) codes), will be issued for the BAA. NAICS codes will be specific to each individual contract award, as determined by the type of activity in which the actual offerer will be engaged, and as a function of the ownership characteristics of the prospective offerer.
- Cooperative agreements will be used when the principal purpose of the transaction is to stimulate or support technology development for public purposes. Offers (i.e., proposal concept papers) being pursued as (or which are subsequently

determined by FRA to be most appropriately awarded as) a cooperative agreement, must follow the procedures described in the sections on Funding Mechanisms, pages 7-8.

Applicants may include in their submissions for consideration an opinion on the type of award instrument they consider would be most suitable for their proposed technology advancements or demonstrations. This will normally also be reflected in the structure of the cost/price portion of the applicants' proposals.

All awards will be subject to the availability of funds. Prospective offerers are cautioned that only the Grants/Contracting Officer can legally commit the Government to the expenditure of public funds under this BAA.

PART VI - MISCELLANEOUS

ADDITIONAL INFORMATION AND SPECIFICATIONS

Cautionary Note! - Prospective offerers are cautioned that the proposal concept paper may contain data the offerer does not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes. If the offerer wishes to restrict such data, the title page must be marked with the following legend (and relevant sheets marked as instructed):

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed – in whole or in part – for any purpose other than to evaluate this proposal. However, if a contract is awarded to this offerer as a result of – or in connection with – the submission of these data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in these data if they are obtained from another source without restriction. The data subject to this restriction are contained in Sheets *[insert numbers or other identification of sheets]*.

To the extent that such restrictions on proprietary data or information would not interfere with the intent of the Government to make the results of the work and projects awarded under the BAA available to all interested parties, and if in conformance with the Freedom of Information Act (5 U.S.C. 552, as amended), the Government will honor those desires.

Terms and Conditions - Awards will generally contain, where appropriate, detailed provisions concerning patent rights, rights in technical data and computer software, data reporting requirements, and other terms and conditions which will be negotiated as part of the award process.

Deliverables, Presentations and Demonstrations - Any specific deliverables (e.g., hardware, models, data, etc.), presentations, and/or demonstrations to be provided or conducted during the course of, or at the conclusion of an awarded contract, will largely be a function of that presented

in the offerer's proposal concept submission or as negotiated at time of award and specified in the resulting contract.

Reporting Requirements - The number and types of reports will be specified in individual award documents. Progress, and interim, draft and/or final reports will be prepared and submitted in accordance with FRA reporting requirements, which will be provided with the award documents.

Internet Sites of Interest for Contracting with the Department of Transportation and the Federal Railroad Administration

U.S. Department of Transportation
Acquisition and Grants Home Page
<http://www.dot.gov/ost/m60/>

Contracting with DOT
<http://osdbuweb.dot.gov/business/mp/miphtml1.html>

DOT Office of Small and Disadvantaged Business Utilization
<http://osdbuweb.dot.gov/>

DOT OSDBU
Marketing Information Packet
<http://osdbuweb.dot.gov/business/mp/mip.html>

DOT Contracting Opportunities
<http://osdbuweb.dot.gov/business/procurement/index.html>

DOT Procurement Forecast for FY 2003
<http://osdbuweb.dot.gov/business/procurement/forecast.html>

Performance-Based Service Contracting
<http://www.dot.gov/ost/m60/pbsc/>

Federal Railroad Administration
Office of Acquisition & Grants Services
http://www.fra.dot.gov/acq_and_grnt_svc/index.htm

Federal Acquisition Regulation (FAR)
<http://www.arnet.gov/far>

Office of Management and Budget Grants Management (Circulars/Forms)
<http://www.whitehouse.gov/OMB/grants/>

Federal Business Opportunities (FedBizOpps) (formerlyEPS)
<http://www.fedbizopps.gov/>

PROPOSAL CONCEPT PAPERCONTENT SUMMARY

(The BAA 2005-1 Package must be read in its entirety. The following is for illustration purposes only.)

Section A - Technical Concept*

Title; Applicant/Offerer; Applicant Capabilities; Objective; Potential Application and Benefits; Maturity, Adaptation, and Innovation; Test Bed; Demonstration Description; and Project Duration.

Section B - Cost or Price*

Labor; Overhead/Fringe; Materials, Supplies and Equipment; Travel and Transportation; Subcontracts; Other Direct Cost (ODC); Miscellaneous; G&A, Profit or Fee (if any); and Cost Sharing/Cost Participation.

Section C - Past Performance Information (N/A to State or Local Govt. or Univ.)

For projects \$100K or more, the Offerer completes Appendix B Survey Part 1 & Part 2 for each of 3 relevant contract references. Does not count in 20-page limit.

Section D - Phased or Follow-on Work

Optional Section not to exceed 3 - 5 pages. Do not furnish if project does not entail phased or follow-on work. Does not count in 20-page limit.

Resumes/C.V.s

1 to 2 pages per Key Person. Not to exceed 3 persons per concept paper.
Does not count in 20-page limit.

Outside Support

Statements or letters of commitment from 3rd parties to support activities or share in project costs should be furnished or made available upon request. Does not count in 20-page limit.

Application for Federal Financial Assistance

Offerers seeking to enter into a grant or cooperative agreement (usually States) must submit appropriate application forms. Otherwise disregard. Does not count in 20-page limit.

***Section A + Section B \leq 20 pages**

PART VII - SUBMISSION

In preparing proposal concept paper for submission to the FRA, offerers are reminded to carefully read this entire BAA and to comply with all content and format requirements.

For identification purposes, submissions should reference the BAA number and title (BAA 2005-1 - Funds Availability for Technology Advancements under the Next Generation High-Speed Rail Program) on the outer packaging and on the submission itself.

Offerers shall submit either:

- An original and four (i.e., a total of five) paper copies of each proposal concept paper and related materials, via regular U.S. mail or express delivery to the following address:

Federal Railroad Administration
Office of Acquisition and Grants Services, Mail Stop 50
Attention: Robert Carpenter
1120 Vermont Avenue, N.W.
Washington, D.C. 20590

- An electronic file, prepared in Microsoft Word or pdf format, sent as an e-mail attachment to this e-mail address: robert.carpenter@fra.dot.gov . Enter “BAA 2005-1 Proposal Submission” in the subject line of the message heading.

Note: No facsimile submissions, applications, or offers will be accepted.

Submissions that are incomplete or materially lacking, pursuant to the instructions in the BAA 2005-1 Package, may be returned unevaluated, or evaluated as is, without further opportunity for revision, at the discretion of the Source Selection Authority.